Why Vaillant?

Because we are a great source of heat pump solutions.

geoTHERM geoTHERM air climaVAIR

Because Vaillant thinks ahead.

Your future energy supply

starts at home

Renewable energy

When it comes to creating the perfect living environment, Vaillant has it all under control. For more than 135 years, we have been setting the standards in the heating market, developing products that have revolutionised the industry. Today we are one of the world's leading heating and renewable technology manufacturers with an enviable reputation for performance, efficiency, quality and reliability.

Heat pumps

Our range of heat pumps is suitable for a wide range of applications in new build properties and refurbishments. The pumps have high energy efficiency ratings and utilise minimal ozone depleting potential (ODP) refrigerants. Due to their high energy efficiency, they are more environmentally friendly than most conventional heating systems.

Why a heat pump?

Heating emissions account for almost 30% of all carbon emissions. Heat pumps are proven to reduce these emissions by an average of 50% compared to fossil fuel boilers or traditional electrical heating. Installing a Vaillant heat pump can therefore help to save the environment by reducing your carbon footprint, and at the same time will give you savings on your fuel bills.

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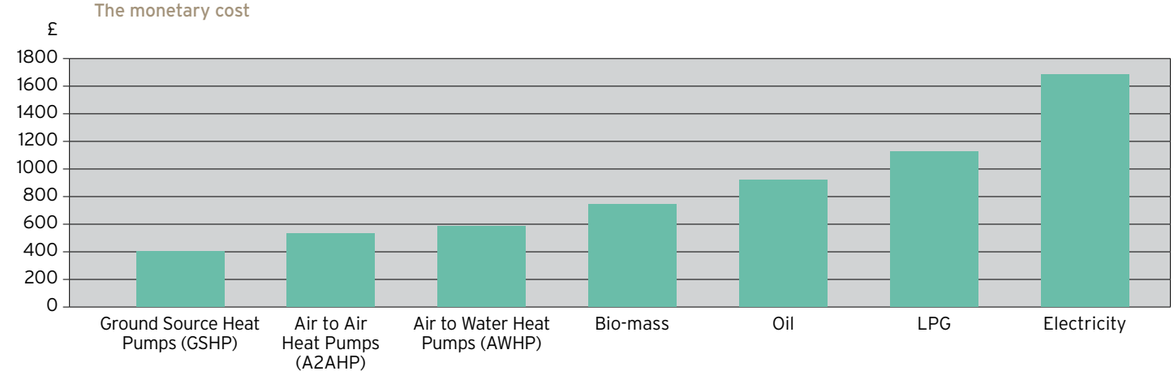
The cost of heating your home

Amazingly, domestic heating generates almost a third of all the carbon emissions for the UK. Whether you're concerned for the environment or just the cost of your fuel bills as energy prices soar, a sustainable heating solution such as a heat pump offers benefits for all.

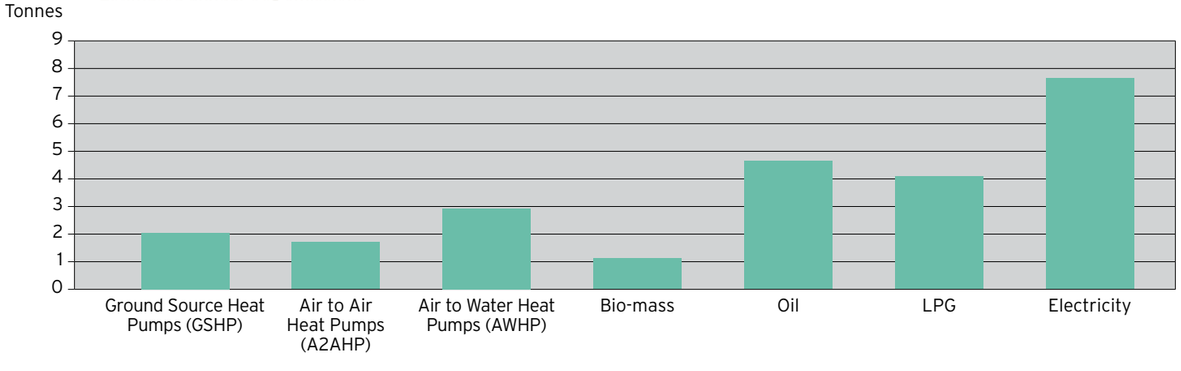
Heat pumps can help reduce your carbon footprint by lowering your home's fuel consumption for heating and hot water. This largely depends on the fuel you're replacing but energy efficient solutions, such as Vaillant's heat pump range, provide a great way of reducing energy consumption while still fulfilling the heating and hot water requirements for a modern home.

The monetary cost



Calculations based on a 120m² house built between 1990-2000 with an annual usage of 14900kW

Estimated annual CO_2 emissions



Calculations based on a 120m² house built between 1990-2000 with an annual usage of 14900kW

How the Vaillant heat pumps work

Ground source heat pump

Air to water heat pump

Air to air heat pump

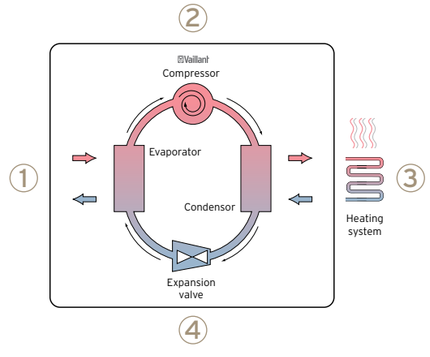
Heat pumps use energy stored in the air or ground and convert this to heat for space heating and hot water production*. Low temperature energy from the air or ground is passed through a CFC-free refrigerant cycle, which converts this energy to higher temperatures for use inside the home.

The heat pump cycle:

1. Heat withdrawn from the air or ground is transferred to the refrigerant. The refrigerant absorbs the heat and changes from a liquid to a gas.
2. The gaseous refrigerant is then passed through a compressor. As the gaseous refrigerant is compressed, its temperature increases further.
3. The heat from the refrigerant is now directly transferred to the heating circuit. The refrigerant is cooled down and returns to a liquid form.
4. In the expansion valve, the refrigerant is then decompressed and cools down further so that it will be able to re-absorb heat from either the air or the ground.

Benefits of heat pump technology

- Efficient use of energy – for every 1kW of electricity used to operate the heat pump provides up to 4kW of heat to the property
- Provides space heating and hot water*
- Proven, reliable technology, from experienced heating manufacturer



The heat pump cycle

*Air to air provides space heating only

Choosing your system

geoTHERM

geoTHERM air

Air to air

When selecting a sustainable heating solution like a heat pump, every effort should be made to improve the energy efficiency of the property. This will decrease the heat loss and greatly increase the efficiency of the building; saving you money in the long term.

Before installing your heat pump, you must complete a full and robust heat loss calculation on the property to get a full understanding of the heating requirements. Once the heat loss calculation has been completed you will be able to select the correct size and type of heat pump required.

Vaillant recommends that you select your heat pump based on heat loss calculations to ensure you get maximum comfort and efficiency from your system. Your Vaillant installer will be able to help you to fully understand your heating requirements.

Ground Source Heat Pumps (GSHP)

An excellent choice for most properties, especially off the gas network. This type of heat pump provides exceptional all year round performance. However, a survey is required before installation to ensure the ground in the area is suitable for the heat pump.

- Very high efficiency as the energy is coming from a stable temperature source
- Home owners may be eligible for future Government funding providing the heat pump is installed by an MCS accredited installer
- Free from increasing gas, oil and LPG costs
- Perfect for use with under floor heating and suitable for use with correctly sized radiators
- ~~Extra bullet point~~
- ~~Extra bullet point~~

Air to Water Heat Pumps (AWHP)

A good choice for those on the gas network. This type of heat pump collects its energy from the air outside and converts it to useable heat, providing your home with heating and hot water.

- No large land space required for a wide range of applications
- Low capital cost (compared to GSHP)
- Can be a stand alone system or integrated with existing heating system
- Free from increasing gas, oil and LPG costs when heating your home*
- No extra space required to store fuel
- Perfect for use with under floor heating and suitable for use with correctly sized radiators

*When using heat pump only

Air to Air Heat Pumps (A2AHP)

Cost-effective system for a wide range of applications. This range of heat pumps can provide all year round space heating solution controlled on a room to room basis.

- Excellent for multi-dwelling builds such as apartments
- Space saving - no radiators or under floor plumbing required
- Easy to use room control
- F-Gas qualifications required to install
- Space heating only

Left to right: geoTHERM exclusive, geoTHERM and geoTHERM for larger properties

Ground source heat pump technology

Taking energy from the ground

The Vaillant geoTHERM heat pump extracts energy from the ground by using a vertical or horizontal ground loop collector.

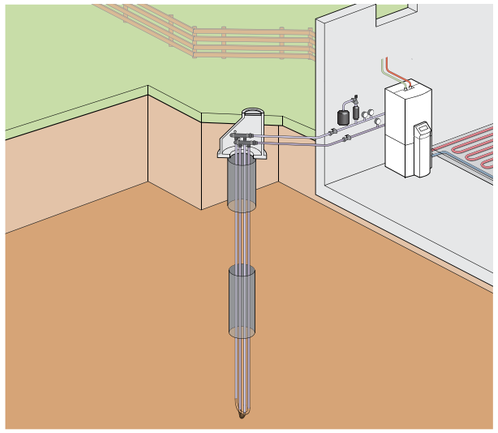
Bore hole collector

The space saving ground loop collector is inserted vertically in the ground. Vaillant have developed links with a number of drilling partners and will assist in the search for the right partner for the installation. The depth and quantity of bore holes required will be determined by the geological survey. A bore hole may be as deep as 100m and multiple bore holes may be required.

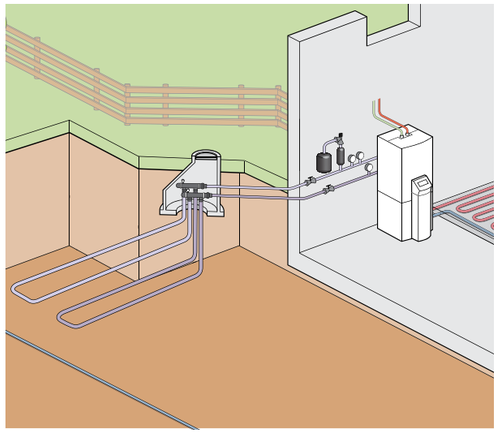
Ground collector

A series of plastic pipes are laid horizontally in the ground to form a horizontal ground loop collector. The pipes will be buried to a depth of 1.2m and the amount of pipework required depends on the heat requirement from the property and the type of ground.

A detailed geological survey will be required to ascertain the size of the ground loop collector for either vertical or horizontal systems.



Bore hole collector



Ground collector

Heat pump type	1-family house	2-family house	Multi-dwelling	Cylinder	Cooling
Heat output	6-8-10kW	14-17kW	22-46kW		
Electrical supply	230V	415V	415V		
geoTHERM exclusive	●			●	●
geoTHERM	●	●	●		● *

*Optional external accessory required

MCS 3 year guarantee on heat pump* 10 year guarantee on compressor

*When commissioned by a Vaillant service engineer or approved agent

geoTHERM

Innovation in detail
The geoTHERM range of ground source heat pumps provides maximum comfort and efficiency, combined with simple installation, smooth operation and advanced diagnostics which have become synonymous with the Vaillant brand.

A high-efficiency evaporator with an injection system significantly boosts the heat transfer process within the ground source heat pump, increasing the efficiency of the system.

Sensor-controlled refrigerant circuit
Throughout the geoTHERM range the process of heat generation is controlled and monitored by advanced sensors. Continuous pressure measurement in the refrigerant circuit, the heating system and the ground loop collector in combination with an anti-freeze function provides optimal comfort. Using the sensor control the refrigerant circuit can be monitored as required without any special measuring equipment.

Environmentally friendly refrigerant
Vaillant heat pumps use CFC-free refrigerant R407C which enhances the individual applications of the ground source heat pump. R407C is environment friendly. The use of refrigerant R407C also allows the ground source heat pump to generate at temperatures of up to 62°C maximising efficiency and operational performance.

Multi-stage Sound Insulation (MSI)
The unique MSI system ensures the ground source heat pump operates extremely quietly. The low noise level of the ground source heat pump is achieved thanks to two elements: the sound-insulated framing module and the vibration-absorbing base plate. In addition, the flexible pipework connection guarantees high performance and quiet operation.

geoTHERM comfort
geoTHERM is the perfect solution for heating your home. geoTHERM can be connected to a suitable high performance hot water cylinder for domestic hot water and to an under floor heating or radiator system for space heating.

Vaillant geoTHERM heat pumps at a glance:
- 6.0/8.1/10.5kW* (230V) output models available
- 13.8/17.3kW* (415V) output models available
- Maximum flow temperature 62°C
- Weather-compensated energy-balance control with graphic display of the environmental yield
- Multi-stage Sound Insulation (MSI) offers 'whisper quiet' operation
- Modern and durable heat pump scroll compressor with 10 year guarantee
- 4kW auxiliary back-up heater for 230V models
- 6kW auxiliary back-up heater for 415V models
- Intelligent Service communication system provides remote monitoring for added peace of mind
- Free commissioning
- 3 year guarantee when commissioned by a Vaillant service engineer**

*BOW35 △T 5K according to EN 14511
**2 year guarantee as standard

Vaillant geoTHERM

The perfect climate all year round

geoTHERM exclusive

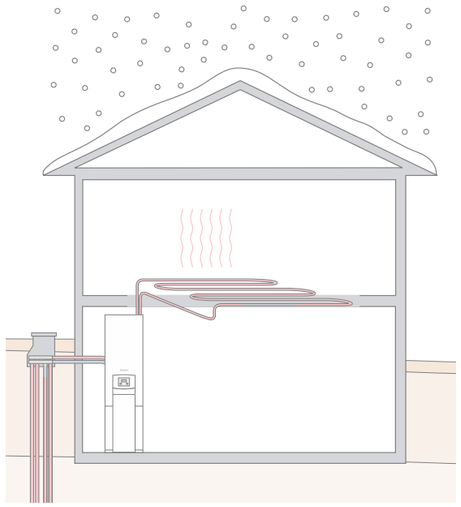
geoTHERM exclusive offers a complete solution to your home comfort providing heat in the winter, cooling in the summer and domestic hot water throughout the year, all from a single unit.

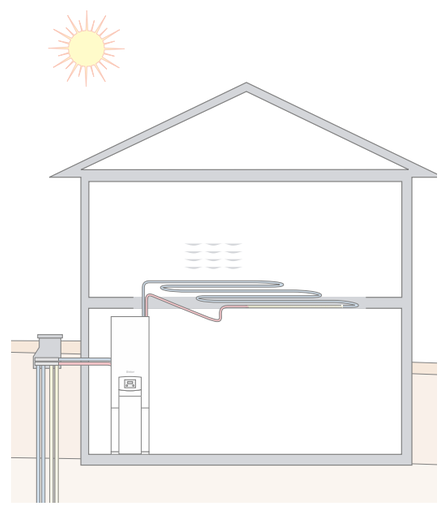
geoTHERM exclusive is equipped with a weather compensation and energy balancing control unit which incorporates an additional passive cooling function, a 175 litre stainless steel domestic hot water cylinder and a 4kW auxiliary back-up heater.

Cooling via the under floor heating system
geoTHERM exclusive includes an integrated passive cooling function when used with an under floor heating system. During the summer months the heat recovery process can be reversed. The excess heat in the living space is withdrawn via the under floor heating system and then transferred to the ground, by-passing the compressor. So, instead of withdrawing thermal energy from the ground, as in the case with heating operation, the heat is withdrawn from the living space and transferred to the ground via the ground loop collector.

Vaillant geoTHERM exclusive:
- 6.0/8.1/10.5kW* (230V) output models available
- Maximum flow temperature 62°C
- Integrated 175L stainless steel unvented DHW cylinder
- 4kW auxiliary back-up heater
- Weather-compensated energy-balance control with graphic display of the environmental yield
- Multi-stage Sound Insulation (MSI) offers 'whisper quiet' operation
- Modern and durable heat pump scroll compressor with 10 year guarantee
- Intelligent Service communication system provides remote monitoring for added peace of mind
- Passive cooling function
- Free commissioning
- 3 year guarantee when commissioned by a Vaillant service engineer**

*BOW35 △T 5K according to EN 14511
**2 year guarantee as standard


geoTHERM exclusive with underfloor heating


geoTHERM exclusive with passive underfloor cooling

geoTHERM 22kW and 30kW

A geoTHERM heat pump for every application

High output applications

Heat pump technology can be used in domestic and light commercial applications. The geoTHERM and geoTHERM exclusive products are complemented by a range of large output heat pumps designed for larger homes or commercial buildings.

geoTHERM flexibility

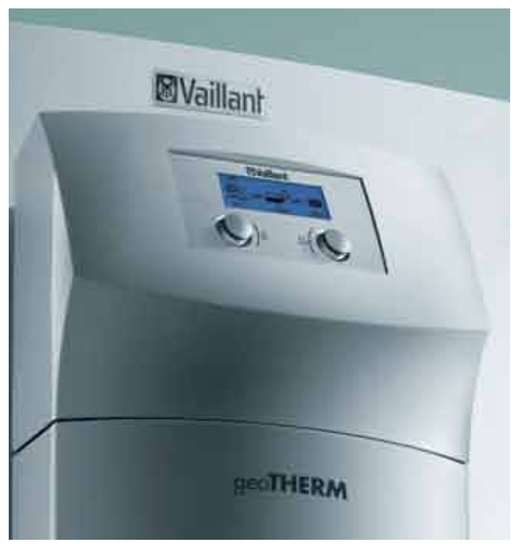
Incorporating many of the features found on the Vaillant geoTHERM heat pumps, the larger output products are supplied without a heating circulation pump allowing the installer the flexibility to design the system to suit a larger output or cascade application.

Larger output geoTHERM heat pumps

The geoTHERM range includes a range of larger heat pumps for larger domestic properties and light commercial requirements.

- 21.6/29.9/38.3/45.9kW* (415V) output models available
- Ability to cascade units for larger system requirements
- Maximum flow temperature 62°C
- Weather-compensated energy-balance control unit with graphic display of the environmental yield
- Multi-stage Sound Insulation (MSI) offers ‘whisper quiet’ operation
- Modern and durable heat pump scroll compressor with 10 year guarantee
- Intelligent Service communication system provides remote monitoring for added peace of mind
- Free commissioning
- 3 year guarantee when commissioned by a Vaillant service engineer**

*B0W35 △T 5K according to EN 14511
**2 year guarantee as standard



geoTHERM 22-46kW

MCS 3 year guarantee on heat pump* 10 year guarantee on compressor

*When commissioned by a Vaillant service engineer or approved agent

Installation, commissioning, control and service

SplitMounting (geoTHERM exclusive)

The SplitMounting concept for the geoTHERM exclusive has been designed to assist with installations in difficult situations (e.g. steep staircases). The hot water cylinder is designed to be easily separated from the heat pump unit. The heat pump and the cylinder can then be transported to the final location as two separate units.

Commissioning

Vaillant engineers will undertake a full commissioning service on all products throughout the geoTHERM range. Any product commissioned by a Vaillant engineer will automatically qualify for an additional year of guarantee. Details of how to arrange your commissioning visit are provided with each appliance.

Weather-compensated energy-balance control

A unique energy-balance control is incorporated within the geoTHERM heat pump. The energy-balance control constantly measures outside temperature, temperature required inside the building and the system temperature to ensure the heat pump operates in the most efficient way possible.

Intelligent Service*

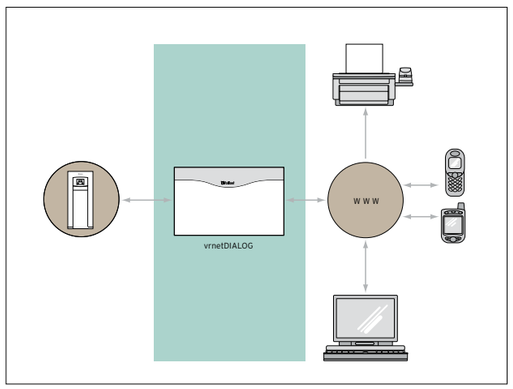
All geoTHERM heat pumps benefit from Vaillant's unique Intelligent Service package. Through Vaillant's Intelligent Service communication system, data is transmitted between the ground source heat pump and a dedicated service team allowing remote monitoring of the system. In the unlikely event of a fault occurring the communications system sends the Vaillant service team a message via email providing details of the fault. Should this occur the service team will automatically contact the home owner to make arrangements for engineers to visit, if the problem cannot be resolved remotely.

The Intelligent Service communication system also allows the heat pump to be monitored remotely and the user advised of changes to the system which could further improve the efficiency.

*GSM module offered as standard. Vaillant reserves the right to offer an alternative when GSM signal is weak.

geoTHERM exclusive with Split Mounting concept

Intelligent Service communication system



geoTHERM Technical specification

Ground source heat pumps						
		geoTHERM 6kW	geoTHERM 8kW	geoTHERM 10kW	geoTHERM 14kW	geoTHERM 17kW
	Unit	VWS 61/2 230V	VWS 81/2 230V	VWS 101/2 230V	VWS 141/2	VWS 171/2
Dimensions						
Height without connections	mm	1200	1200	1200	1200	1200
Width	mm	600	600	600	600	600
Depth without/with column	mm	650/840	650/840	650/840	650/840	650/840
Weight with/without packaging	kg	154/139	161/146	164/149	182/174	189/174
Electric connection						
Compressor and auxiliary back-up heater		1/N/PE 230V 50Hz	1/N/PE 230V 50Hz	1/N/PE 230V 50Hz	3/N/PE 400V 50Hz	3/N/PE 400V 50Hz
Control		1/N/PE 230V 50Hz	1/N/PE 230V 50Hz	1/N/PE 230V 50Hz	1/N/PE 230V 50Hz	1/N/PE 230V 50Hz
Slow-blow fuse	A	16/20	25/25	25/25	3x25	3x25
Inrush current without limiter	A	-	-	-	64	74
Inrush current with limiter	A	<45	<45	<45	<25	<25
Electric power consumption						
- max. at B20W60	kW	2.8	4.0	4.9	6.8	7.7
Auxiliary back-up heater	kW	2/4	2/4	2/4	2/4/6	2/4/6
System of protection EN 60529		IP 20	IP 20	IP 20	IP 20	IP 20
Ground loop collector						
Brine type		ethylene glycol 30%	ethylene glycol 30%	ethylene glycol 30%	ethylene glycol 30%	ethylene glycol 30%
Max. operating pressure	bar	3	3	3	3	3
Min. inlet temperature	°C	-10	-10	-10	-10	-10
Max. inlet temperature	°C	20	20	20	20	20
Rated volume flow △T 3K	l/h	1453	1936	2530	3334	3939
Residual pump head △T 3K	mbar	381	332	263	252	277
Electric power consumption of the pump	W	132	132	132	205	210
Heating circuit						
Max. operating pressure bar	bar	3	3	3	3	3
Min. flow temperature	°C	25	25	25	25	25
Max. flow temperature	°C	62	62	62	62	62
Rated volume flow △T 10K	l/h	517	697	848	1187	1538
Residual pump head △T 10K	mbar	486	468	450	551	603
Electric power consumption of the pump	W	93	93	93	132	205
Refrigerant circuit						
Refrigerant type		R407C	R407C	R407C	R407C	R407C
Quantity	kg	1.9	2.2	2.05	2.9	3.05
Admissible operating over pressure	bar	29	29	29	29	29
Compressor type/oil		Scroll/Ester	Scroll/Ester	Scroll/Ester	Scroll/Ester	Scroll/Ester
Inside acoustic power	dBA	49	51	53	52	53
Performance data						
Heating output (B0W35 △T 5K acc. to EN 14511)	kW	6.0	8.1	10.5	13.8	17.3
Electrical power consumption	kW	1.4	1.9	2.5	3.2	4.1
CoP (Coefficient of Performance)		4.2	4.2	4.2	4.3	4.3
Heating output (B0W55 △T 5K acc. to EN14511)	kW	5.5	7.5	9.4	13.6	16.1
Electrical power consumption	kW	2.1	2.8	3.4	4.6	5.6
CoP (Coefficient of Performance)		2.6	2.7	2.8	2.9	2.9

Ground source heat pumps				
		geoTHERM exclusive 6kW	geoTHERM exclusive 8kW	geoTHERM exclusive 10kW
	Unit	VWS 63/2 230V	VWS 83/2 230V	VWS 103/2 230V
Dimensions				
Height without connections	mm	1800	1800	1800
Width	mm	600	600	600
Depth without/with column	mm	650/840	650/840	650/840
Weight with/without packaging	kg	231/216	239/224	242/227
Electric connection		1/N/PE 230V 50Hz	1/N/PE 230V 50Hz	1/N/PE 230V 50Hz
Compressor and auxiliary back-up heater		3/N/PE 400V 50Hz	3/N/PE 400V 50Hz	3/N/PE 400V 50Hz
Control circuit		1/N/PE 230V 50Hz	1/N/PE 230V 50Hz	1/N/PE 230V 50Hz
Slow-blow fuse	A	16/20	25/25	25/25
Inrush current without limiter	A	<45	<45	<45
Electric power consumption				
- max. at B20W60	kW	2.8	4.0	4.9
- Auxiliary back-up heater	kW	2/4	2/4	2/4
System of protection EN 60529		IP 20	IP 20	IP 20
Integrated hot water cylinder				
Capacity	l	175	175	175
Max. operating pressure	bar	10	10	10
Max. temperature with heat pump	°C	55	55	55
Max. temperature with heat pump and auxiliary back-up heater	°C	75	75	75
Ground loop collector				
Brine type		ethylene glycol 30%	ethylene glycol 30%	ethylene glycol 30%
Max. operating pressure	bar	3	3	3
Min. inlet temperature	°C	-10	-10	-10
Max. inlet temperature	°C	20	20	20
Rated volume flow △T 3K	l/h	1453	1936	2530
Residual pump head △T 3K	mbar	335	277	216
Electric power consumption of the pump	W	132	132	132
Heating circuit				
Max. operating pressure	bar	3	3	3
Min. flow temperature	°C	25	25	25
Max. flow temperature	°C	62	62	62
Rated volume flow △T 10K	l/h	517	697	848
Residual pump head △T 10K	mbar	490	460	580
Electric power consumption of the pump	W	93	93	132
Refrigerant circuit				
Refrigerant type		R407C	R407C	R407C
Quantity	kg	1.9	2.2	2.05
Admissible operating over pressure	bar	29	29	29
Compressor type/oil		Scroll/Ester	Scroll/Ester	Scroll/Ester
Output passive cooling	kW	3.8	5.0	6.2
Inside acoustic power	dBA	48	49	50
Performance data				
Heating output (B0W35 △T 5K acc. to EN 14511)	kW	6.0	8.1	10.5
Electrical power consumption	kW	1.4	1.9	2.5
CoP (Coefficient of Performance)		4.2	4.2	4.2
Heating output (B0W55 △T 5K acc. to EN 14511)	kW	5.5	7.5	9.4
Electrical power consumption	kW	2.1	2.8	3.4
CoP (Coefficient of Performance)		2.6	2.7	2.8

Ground source heat pumps					
		geoTHERM 22kW	geoTHERM 30kW	geoTHERM 38kW	geoTHERM 46kW
	Unit	VWS 220/2	VWS 300/2	VWS 380/2	VWS 460/2
Dimensions					
Height without connections	mm	1200	1200	1200	1200
Width	mm	760	760	760	760
Depth without/with column	mm	900/1100	900/1100	900/1100	900/1100
Weight with/without packaging	kg	356/326	370/340	394/364	417/387
Electric connection					
Compressor and auxiliary back-up heater		3/N/PE 400V 50Hz	3/N/PE 400V 50Hz	3/N/PE 400V 50Hz	3/N/PE 400V 50Hz
Control circuit		1/N/PE 230V 50Hz	1/N/PE 230V 50Hz	1/N/PE 230V 50Hz	1/N/PE 230V 50Hz
Slow-blow fuse	A	3x20	3x25	3x32	3x40
Inrush current with limiter	A	44	65	85	110
Electric power consumption					
- max. at B20W60	kW	10.0 1	12.0	16.0	18.0
System of protection EN 60529		IP 20	IP 20	IP 20	IP 20
Ground loop collector					
Brine type		ethylene glycol 30%	ethylene glycol 30%	ethylene glycol 30%	ethylene glycol 30%
Max. operating pressure	bar	3	3	3	3
Min. inlet temperature	°C	-10	-10	-10	-10
Max. inlet temperature	°C	20	20	20	20
Rated volume flow △T 3K	l/h	4858	6660	8640	9840
Residual pump head △T 3K	mbar	324	275	431	379
Electric power consumption of the pump	W	390	390	585	585
Heating circuit					
Max. operating pressure	bar	3	3	3	3
Min. flow temperature	°C	25	25	25	25
Max. flow temperature	°C	62	62	62	62
Rated volume flow △T 10K	l/h	1902	2580	3336	3900
Residual pump head △T 10K	mbar	23	25	40	53
Electric power consumption of the pump	W	-	-	-	-
Refrigerant circuit					
Refrigerant type		R407C	R407C	R407C	R407C
Quantity	kg	4.1	5.99	6.7	8.6
Admissible operating over pressure	bar	29	29	29	29
Compressor type/oil		Scroll/Ester	Scroll/Ester	Scroll/Ester	Scroll/Ester
Inside acoustic power	dBA	63	63	63	65
Performance data					
Heating output (B0W35 △T 5K acc. to EN 14511)	kW	21.6	29.9	38.3	45.9
Electrical power consumption	kW	5.1	6.8	8.8	10.6
CoP (Coefficient of Performance)		4.3	4.4	4.4	4.4
Heating output (B0W55 △T 5K acc. to EN 14511)	kW	20.3	27.3	36.2	42.5
Electrical power consumption	kW	6.9	9.3	11.8	14.1
CoP (Coefficient of Performance)	kW	3.0	2.9	3.1	3.0

geoTHERM air 7kW

Air to water heat pump technology

Innovation in detail
The geoTHERM air range of heat pumps provides maximum comfort and efficiency, combined with simple installation, smooth operation and advanced diagnostics.

Advanced evaporation technology
A high-efficiency evaporator with an injection system significantly boosts the heat transfer process within the geoTHERM air, increasing the efficiency of the system.

Sensor-controlled refrigerant circuit
Throughout the geoTHERM air range, the process of heat generation is controlled and monitored by advanced sensors. Continuous pressure measurement in the refrigerant circuit, heating system and collector, in combination with an anti-freeze function, provides optimal comfort. Using the sensor control, the refrigerant circuit can be monitored as required without any special measuring equipment.

Environmentally friendly refrigerant
Vaillant air source heat pumps use a CFC-free refrigerant, which enhances the individual applications of the heat pump. The use of environment friendly refrigerant, R410a, also allows the air source heat pump to generate at temperatures of up to 60°C for domestic hot water, ensuring maximum comfort.

Piharmonic™ function
The unique Piharmonic system ensures the air source heat pump operates extremely quietly. The low noise level of the heat pump is achieved thanks to two elements – the sound-insulated framing module and the vibration-absorbing base plate.

geoTHERM air comfort
geoTHERM air is the perfect solution for heating your home. It can be connected to a suitable high performance hot water cylinder for domestic hot water and to an underfloor heating or radiator system for space heating.

Vaillant geoTHERM air at a glance:
- Monobloc unit – sealed refrigerant circuit, which means no F-Gas refrigerant handling qualification is required for installation
- High efficiency R410a zero ozone depletion potential refrigerant
- DC inverter – extra power at peak times and highly efficient for standard operation
- Intelligent compressor management – maximises total system efficency
- In-built weather compensation – permanent monitoring of the outside temperature to adapt the heating system output to maintain the desired temperature
- Maximum flow temperature of 60°C acheivable for DHW
- Single phase 230v electrical connection
- Vaillant Piharmonic function
- Innovative fan design – to maximise air flow and minimise noise

Vaillant geoTHERM air 12 and 15kW

MCS 2year guarantee on heat pump* 5year guarantee on compressor

Controls

Vaillant geoTHERM air control

The geoTHERM air comes complete with its own intelligent control*. For ease of use this control can be used in two ways for a geoTHERM air heating and hot water system:

- The heat pump interface, set up, service and diagnostic control
- Or both the interface and a fully programmable room thermostat for single zone heating systems

The geoTHERM air controller is specifically designed to ensure that space heating operates at optimum efficiency. The controller is also designed to readily interface with W plan valve (priority system) configurations for central heating and hot water systems. This enables the geoTHERM air to be used with correctly sized radiator and under floor heating systems and our range of unvented cylinders.

To combat the ineffective 'On/Off' approach of heating systems, our inverter driven technology means we can offer Flow Temperature Control. Simply put, this enables the system to vary the flow temperature of water depending on the demand for heat so the heat pump only works as hard as it needs to, to maintain excellent levels of comfort whilst quickly reacting to outdoor weather temperatures and making it hugely energy efficient.

Example features of control systems:

- Outside weather compensator
- Programmable flow set point temperatures
- Inverter driven compressor
- Able to interface with W plan central heating system

*The geoTHERM air control is not compatible with any other Vaillant products or Vaillant's range of eBus controls.

System sizing

Getting the most from your heat pump

Vaillant's air to water heat pumps work on a similar principle to a refrigerator. The geoTHERM air will self-manage the temperature of your home ensuring your comfort. In order to gain maximum efficiencies from your heat pump system, simply set the required temperature and let the intelligent controls do the rest.

Sizing your heat pump

To ensure you get the most out of your sustainable heating solution, such as geoTHERM air, every effort has to be taken to make sure your property is energy efficient to minimise your heating requirement. By investing in this you will reduce the peak heat loss of your home making your heating system far more efficient, saving you money and reducing your carbon emissions.

In order to meet your comfort needs, you must select the heat pump that can meet your heating requirements when the outside air temperature drops to -5ºC. Vaillant always recommends a full and robust heating calculation be carried out before installing a heat pump. The geoTHERM air gets its heating energy from the outside air. As the temperature drops, so does the amount of energy. This must be taken into consideration when selecting the right heat pump for you.

Available power – geoTHERM air range

35º Flow

Outdoor temp		7kW	12kW	15kW
-5	kW	4.55	7.40	8.31
	CoP	2.71	2.75	2.62
-3	kW	4.85	7.90	9.06
	CoP	2.79	2.85	2.85
0	kW	5.14	8.47	9.81
	CoP	2.94	3.00	3.08
2	kW	5.41	8.72	10.20
	CoP	2.99	3.11	3.20
7	kW	7.20	11.82	14.50
	CoP	3.90	3.90	4.06

45º Flow

Outdoor temp		7kW	12kW	15kW
-5	kW	4.45	6.96	7.90
	CoP	2.28	2.24	2.10
-3	kW	4.72	7.38	9.06
	CoP	2.35	2.33	2.36
0	kW	5.11	8.03	9.80
	CoP	2.42	2.42	2.48
2	kW	5.38	8.45	10.20
	CoP	2.55	2.61	2.60
7	kW	7.40	11.38	14.00
	CoP	3.16	3.03	3.21

55º Flow

Outdoor temp		7kW	12kW	15kW
-5	kW	4.24	7.06	7.60
	CoP	2.02	1.92	1.80
-3	kW	4.50	7.57	8.52
	CoP	2.10	1.99	2.00
0	kW	4.88	8.04	9.23
	CoP	2.20	2.08	2.08
2	kW	5.14	8.47	10.20
	CoP	2.34	2.20	2.60
7	kW	6.71	11.04	13.90
	CoP	2.68	2.50	2.82

geoTHERM air

Technical specification

Description	Unit	VWL 75/1	VWL 125/1	VWL 155/1
Min. operating outside temperature (in heating)	°C	-20	-20	-20
Max. operating outside temperature (in heating)	°C	30	30	30
Specifications, with radiators				
(flow: 45°C, return: 40°C, outside dry temperature (wet) 7(6)°C				
Heating output	kW	7.4	12.9	14
Power input	kW	2.32	4.2	4.4
Rated electrical current	A	10	18	19
CoP* A7(6) W45-40		3.18	3.03	3.21
Specifications, with underfloor heating				
(flow: 35°C, return: 30°C, outside dry temperature (wet) 7(6)°C				
Heating output	kW	7.2	11.9	14.5
Power input	kW	1.82	3.01	3.6
Rated electrical current	A	8	13	15.6
CoP* A7(6) W35		3.96	3.94	4.06
Refrigerant circuit				
Type of refrigerant				
Quantity of refrigerant	kg	1.81	2.485	3.385
Type of compressor		Rotary		
Type of oil		Polyolester		
Type of regulator		Electronic		
Fan speed	rpm	1000	805	1050
Maximum operating pressure (PS)	bar	45	45	45
	Pa	45 x 105	45 x 105	45 x 105
Heat pump circuit				
Maximum supply pressure	bar	3	3	3
	Pa	3 x 105	3 x 105	3 x 105
Nominal static pressure	bar	0.4	0.45	0.3
	Pa	40 x 103	45 x 103	30 x 103
Nominal water flow rate in heating mode	l/h	1200	2100	2500
Minimum water flow rate	l/h	500	500	500
Minimum flow temperature setting (in heating)	°C	20	20	20
Maximum flow temperature setting (in heating)	°C	60	60	60
Heat pump water volume	l	1.2	2.3	2.3

Description	Unit	VWL 75/1	VWL 125/1	VWL 155/1
Electrical				
Supply voltage/frequency	V/Hz	1/N/PE 230V 50Hz		
Fuse		15 typo D	25 typo D	25 typo D
Maximum absorbed power (p max)	kW	2.7	5.1	5.1
Maximum absorbed current (I max)	A	14	23	20
Index of electrical protection		IPX4	IPX4	IPX4
Electrical classification		1	1	1
Dimensions				
Height	mm	821	1363	1363
Width	mm	908	908	908
Depth	mm	326	326	326
Ø Water circuit connections	in	1	1	1
Nett total weight	kg	71	105	130
Sound power level: overall exterior noise (according to EN 12102 and EN ISO 9614-1)	dBA	64	67	68

* Coefficient of Performance (according to EN 14511)
** Energy Efficiency Ratio (according to EN 14511)

Air to air heat pump technology

Innovation in detail

The climaVAIR range of air to air heat pumps provides maximum comfort and efficiency, combined with simple installation, smooth operation and advanced diagnostics which have become synonymous with the Vaillant brand.

Our heat pump systems can efficiently heat the room during the winter and as an added benefit also provide cooling during the summer. This means you can enjoy a climate controlled environment all year round.

Advanced filter solutions also bring good news for allergy sufferers with the air to air heat pump system cleaning the air as it circulates in the room. Plus, due to its high efficiency in heating mode, it's more environmentally friendly than many conventional heating systems.

All Vaillant climaVAIR air to air heat pumps are supplied in a predefined set, which includes the indoor and outdoor units, infra red remote control and pipe work and fittings to allow installation of the indoor unit up to 10m from the outdoor unit. For greater distances additional pipework will be required.

All climaVAIR air to air heat pumps have high efficiency ratings and utilise zero ozone depleting potential (ODP) refrigerants.

Vaillant climaVAIR heat pumps at a glance:

- Temperature and operating mode
- Fan speed
- Louvre position
- Timer and sleep function
- Air quality settings
- Plus and exclusive models available

Vaillant climaVAIR

climaVAIR plus

V-Multi system

V-Multi system

Vaillant's versatile climaVAIR V-Multi air to air heat pump range is a perfect solution when there is a need to heat or cool a number of rooms. Each outdoor unit can connect to up to four indoor wall mount units, providing a total heating output of 10kW.

Functions include remote setting of:

- Temperature and operating mode
- Fan speed
- Louvres
- Timer and sleep function
- Air quality settings

climaVAIR plus V-Multi system

Multi inverter air to air heat pumps:
– Outdoor unit at 10kW
– 4 wall mount units from 2.38 to 2.96kW

Indoor unit

Outdoor unit

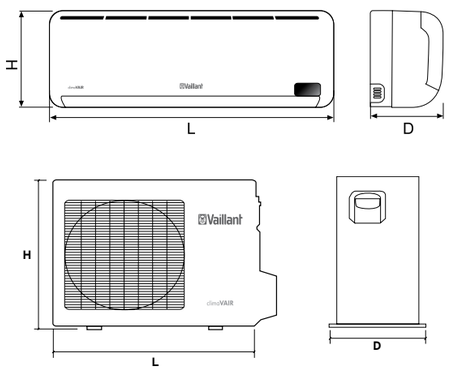
Remote control

Indoor unit dimensions: climaVAIR plus V-Multi

Model (wall mount)	H (mm)	L (mm)	D (mm)	Kg
VAI 2-025 WNI	265	790	200	8.5
VAI 2-035 WNI	265	790	200	8.5

Outdoor unit dimensions: climaVAIR plus V-Multi

Model	H (mm)	L (mm)	D (mm)	Kg
VAF 2-085 W4NO	860	895	330	78



All climaVAIR plus V-Multi air to air heat pumps have the following features:

DC inverter technology
Technology which significantly reduces energy and CO^2 output by matching compressor speed to heating/cooling requirements.

Digital display
Colourful LCD Digital Display.

Sleep function
Function which adapts the ambient temperature during sleep.

Auto operation
Automatic activation in the appropriate mode (HEAT - COOL - DRY), by adjusting its operation to the ambient temperature. The user can also select the desired airflow.

Ionizer
Negative ion generator which as well as being beneficial for well-being and the environment, also neutralises odours, provides freshness and reduces contamination.

Energy class 'A++'
Excellent energy efficiency is achieved thanks to an energy saving technology.

Freeze protection
Prevents the outdoor unit from freezing in the winter months.

24hr programmer
Programms the units so that they start or stop at user defined times. Clock and repeat function.

Anti-dust filter
Removes small particles of dust and debris from the circulated air.

Anti-germ filter
Filter with special coating to neutralise bacteria and germs.

Activated carbon filter
Filter with special coating to provide anti-odour and sterilisation of the circulated air to remove harmful smells and odours.

Infra-red remote control
All functions controlled by infra-red remote control.

R410a
Energy efficient zero ozone depleting potential (ODP) refrigerant.

Sleep function
Function which adapts the ambient temperature during sleep.

Auto restart function
After power cut this function ensures the system restarts with the same settings (as those in force prior to power supply interruption).

Low noise
Lowers the internal fan speed to provide reduced noise levels.

climaVAIR plus

Multi-twin system

Multi-twin systems

Vaillant's climaVAIR plus multi heat pump range is perfect when more than one area requires heating and there is limited room for the outdoor units. The range consists of a single energy efficient inverter model of 6.4kW. The system consists of one outdoor unit which is connected to two individual indoor wall mounted units.

The multi-twin system has all the features of the climaVAIR plus wall mount mono range such as inverter speed control compressors, high efficiency non-ozone depleting R410a refrigerant, three stage filtration, remote setting of horizontal and vertical louvres. Simple to use multi-function infra red remote control provides remote setting of:

- Temperature and operating mode
- Fan speed
- Louvre position
- Timer and sleep function
- Air quality settings

climaVAIR plus multi-twin split system

Mono inverter air to air heat pumps:
One outdoor unit with a heat output of 6.25kW
Two indoor units with heat outputs of 2.8kW and 3.4kW

Indoor units

Outdoor unit

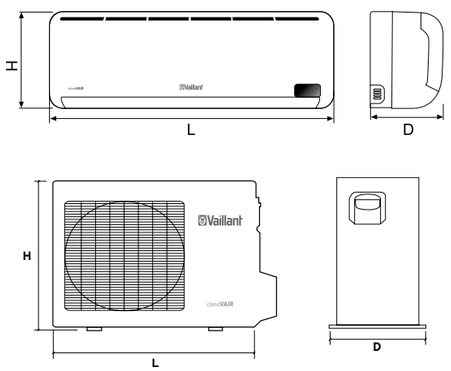
Remote controls

Indoor unit dimensions: climaVAIR plus multi-twin

Model	H (mm)	L (mm)	D (mm)	Kg
VAI 2-025 WNI	265	790	200	8.5
VAI 2-035 WNI	265	790	200	8.5

Outdoor unit dimensions: climaVAIR plus multi-twin

Model	H (mm)	L (mm)	D (mm)	Kg
VAM 2-060 W2NO	695	845	315	60.0



All climaVAIR plus multi-twin air to air heat pumps have the following features:

DC inverter technology
Technology which significantly reduces energy and CO^2 output by matching compressor speed to heating/cooling requirements.

Digital display
Colourful LCD Digital Display.

Sleep function
Function which adapts the ambient temperature during sleep.

Auto operation
Automatic activation in the appropriate mode (HEAT - COOL - DRY), by adjusting its operation to the ambient temperature. The user can also select the desired airflow.

Ionizer
Negative ion generator which as well as being beneficial for well-being and the environment, also neutralises odours, provides freshness and reduces contamination.

Energy class 'A++'
Excellent energy efficiency is achieved thanks to an energy saving technology.

Freeze protection
Prevents the outdoor unit from freezing in the winter months.

24hr programmer
Programms the units so that they start or stop at user defined times. Clock and repeat function.

Anti-dust filter
Removes small particles of dust and debris from the circulated air.

Anti-germ filter
Filter with special coating to neutralise bacteria and germs.

Activated carbon filter
Filter with special coating to provide anti-odour and sterilisation of the circulated air to remove harmful smells and odours.

Infra-red remote control
All functions controlled by infra-red remote control.

R410a
Energy efficient zero ozone depleting potential (ODP) refrigerant.

Sleep function
Function which adapts the ambient temperature during sleep.

Auto restart function
After power cut this function ensures the system restarts with the same settings (as those in force prior to power supply interruption).

Low noise
Lowers the internal fan speed to provide reduced noise levels.

climaVAIR plus

Wall mount mono split system

High wall mono split systems

Vaillant's climaVAIR plus heat pump range is designed to complement any indoor décor. The range consists of 4 energy efficient inverter models ranging from 2.9kW to 7.35kW. These feature packed units provide three stage filtration, de-ioniser and remotely controlled air louvres to afford the user a constant stream of filtered air.

Simple to use multi-function infra red remote control is standard across the range. Features include remote setting of:

- Temperature and operating mode
- Fan speed
- Louvre position
- Timer and sleep function
- Air quality settings

climaVAIR plus high wall mono split system models

Mono inverter air to air heat pumps:
A range of four models with heat outputs from 2.9kW to 7.35kW

Indoor unit

Outdoor unit

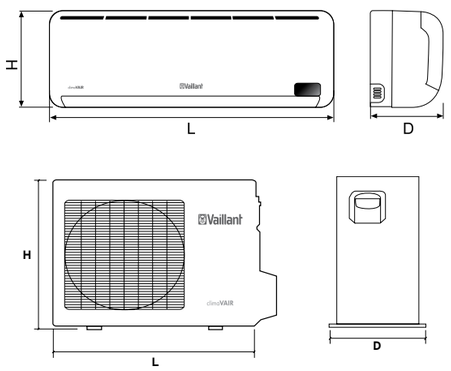
Remote control

Indoor unit dimensions: climaVAIR plus

Model	H (mm)	L (mm)	D (mm)	Kg
VAI 2 - 025 WNI	265	790	200	8.5
VAI 2 - 035 WNI	265	790	200	8.5
VAI 2 - 050 WNI	295	920	225	11.5
VAI 2 - 065 WNI	325	1,000	235	16.5

Outdoor unit dimensions: climaVAIR plus

Model	H (mm)	L (mm)	D (mm)	Kg
VAI 2 - 025 WNO	600	760	285	38.0
VAI 2 - 035 WNO	600	760	285	38.0
VAI 2 - 050 WNO	600	760	285	39.5
VAI 2 - 065 WNO	695	845	315	52.0



All climaVAIR plus air to air heat pumps have the following features:

DC inverter technology
Technology which significantly reduces energy and CO^2 output by matching compressor speed to heating/cooling requirements.

Digital display
Colourful LCD Digital Display.

Sleep function
Function which adapts the ambient temperature during sleep.

Auto operation
Automatic activation in the appropriate mode (HEAT - COOL - DRY), by adjusting its operation to the ambient temperature. The user can also select the desired airflow.

Ionizer
Negative ion generator which as well as being beneficial for well-being and the environment, also neutralises odours, provides freshness and reduces contamination.

Energy class 'A++'
Excellent energy efficiency is achieved thanks to an energy saving technology.

Freeze protection
Prevents the outdoor unit from freezing in the winter months.

24hr programmer
Programms the units so that they start or stop at user defined times. Clock and repeat function.

Anti-dust filter
Removes small particles of dust and debris from the circulated air.

Anti-germ filter
Filter with special coating to neutralise bacteria and germs.

Activated carbon filter
Filter with special coating to provide anti-odour and sterilisation of the circulated air to remove harmful smells and odours.

Infra-red remote control
All functions controlled by infra-red remote control.

R410a
Energy efficient zero ozone depleting potential (ODP) refrigerant.

Sleep function
Function which adapts the ambient temperature during sleep.

Auto restart function
After power cut this function ensures the system restarts with the same settings (as those in force prior to power supply interruption).

Low noise
Lowers the internal fan speed to provide reduced noise levels.

climaVAIR exclusive

High wall mount mono split system

High wall mount mono split system

Vaillant's climaVAIR exclusive air conditioning units are a feature packed range for the ultimate in domestic cooling or heating comfort.

The range consists of 2 energy efficient inverter models with cooling outputs of 2.64kW and 3.52kW.

As well as the three stage filtration and de-ionisation as standard, the exclusive range further enhances the air quality with an ultra violet bacteria reducing module.

climaVAIR exclusive's modern thin 165mm flat-fronted design with its unique concealed vent operation offers the perfect solution for homes, offices and shops.

Simple to use multi-function infra red remote control is standard across the range and offers remote setting of:

- Temperature and operating mode
- Fan speed
- Louvre position
- Timer and sleep function
- Air quality settings

climaVAIR exclusive has a bright white digital display which provides useful information for the user such as timer, operation mode, set temperature, turbo, sleep and ionizer functions. The display can also be turned off if desired.

Indoor unit

Outdoor unit

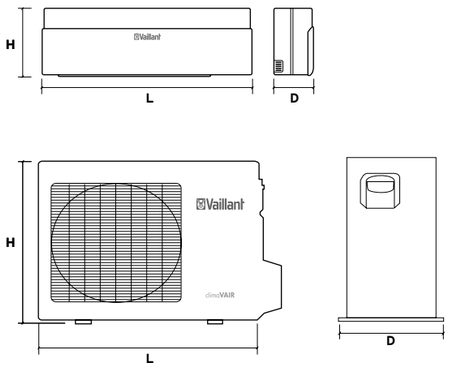
Remote control

Indoor unit dimensions: climaVAIR exclusive

Model	H (mm)	L (mm)	D (mm)	Kg
VAI 1-025 WNI	290	905	165	10
VAI 1-035 WNI	290	905	165	10

Outdoor unit dimensions: climaVAIR exclusive

Model	H (mm)	L (mm)	D (mm)	Kg
VAI 1-025 WNO	590	760	285	38
VAI 1-035 WNO	590	760	285	39



All climaVAIR exclusive air conditioning systems have the following features:

4 modes
Heating, cooling, fan and dry mode.

Auto operation
Automatic activation in the appropriate mode (HEAT - COOL - DRY), by adjusting its operation to the ambient temperature. The user can also select the desired airflow.

Ionizer
Negative ion generator which as well as being beneficial for well-being and the environment, also neutralises odours, provides freshness and reduces contamination.

Infra-red remote control
All functions controlled by infra-red remote control. Includes "Follow Me" function.

Hot start function
Only starts the internal fan when the heating coil is hot to prevent cool air discharge.

Fresh air option
Fresh air introduction feature. Transfers the fresh air from the outside to inside via an in-built heat exchanger for maximum efficiency.

Auto restart function
After power cut this function ensures the system restarts with the same settings (as those in force prior to power supply interruption).

Silent operation
Lowers the internal fan speed to provide reduced noise levels.

Turbo
Increases the heat pump speed when faster room heating/cooling is required.

Horizontal air swing
Enables the air direction to be adjusted horizontally for improved distribution.

Vertical air swing
Enables the air direction to be adjusted vertically for improved distribution.

Sleep function
Function which adapts the ambient temperature during sleep.

24hr programmer
Programms the units so that they start or stop at user defined times. Includes repeat function.

Outdoor valve protector
Protects the valves on the outdoor unit from exposure to the elements.

Energy class 'A'
Many unit combinations achieve 'A' rated energy efficiency.

Defrost
Prevents the outdoor unit from freezing in the winter months.

Anti-rust outdoor
Outdoor unit made of galvanised steel and anti-rust materials. Even resistant in environments with high saline content.

DC inverter technology
Technology which significantly reduces energy and CO^2 output by matching compressor speed to heating/cooling requirements

R410a
Energy efficient zero ozone depleting potential (ODP) refrigerant.

Twin rotary
Twin rotating cylinders provide improved efficiency and reduced vibration in comparison with single types.

Anti-dust filter
Removes small particles of dust and debris from the circulated air.

Anti-germ filter
Filter with special coating to neutralise bacteria and germs.

Activated carbon filter
Filter with special coating to provide anti-odour and sterilisation of the circulated air to remove harmful smells and odours.

Ultra-violet
Lamp emitting UV-C rays which kill micro-organisms and mould spores.

climaVAIR plus V-Multi system

Technical specification

System reference		climaVAIR plus V-Multi system	
		VAM 2-085 W3N (3 Indoor)	VAM 2-110 W4N (4 Indoor)
Indoor units		2 off VAI 2-025WNI	3 off VAI 2-025WNI
		1 off VAI 2-035WNI	1 off VAI 2-035WNI
Outdoor unit		VAF 2-110 W4NO	VAF 2-110 W4NO
Heating capacity	kW	9.05	10.10
(Min-max)	kW	3.8 - 10.95	4.13 - 12.30
Cooling capacity	kW	8.10	9.10
(Min-max)	kW	3.40 - 9.80	3.73 - 11.09
Power input (heating/cooling)	kW	2.17/2.48	2.42/2.78
Operating current (heating/cooling)	A	10.80/10.80	12.10/12.10
EER/CoP		3.27/3.63	3.27/3.63
Energy level class		A	A
Annual consumption [1]	kW	1.24	1.39
Indoor Unit		VAI 2-025 WNI	VAI 2-035 WNI
Air flow volume	m^3/h	250/300/500	310/450/580
Remote control type		Infra-red	Infra-red
Sound pressure level (min-max)[2]	dB(A)	26/38	28/40
Dimensions HxLxD	mm	265 x 790 x 200	265 x 790 x 200
Net weight	Kg	8.5	8.5
Outdoor Unit		VAF 2-110 W4NO	VAF 2-110 W4NO
Air flow volume	m^3/h	2800/3500	2800/3500
Sound pressure level (min-max)[3]	dB(A)	55/57	55/57
Refrigerant		R410a	R410a
Refrigerant charge heat pump	gr	2,400	2400
Inverter DC/AC		Inverter DC	Inverter DC
Expansion System		EXV + Capillary	EXV + Capillary
Dimensions HxLxD	mm	860 x 895 x 330	860 x 895 x 330
Net weight	Kg	78	78
Installation			
Power supply	V/Ph/Hz	230/1/50	230/1/50
Supply to:		Outdoor	Outdoor
Pipe connection liquid/gas	in	1/4" - 3/8"	1/4" - 3/8"
Max. piping length	m	60	60
Max. height differential indoor to outdoor	m	10	10
Chargeless length	m	7.5	7.5
Additional charge per metre	gr	15	15

[1] Based on 500 hours operating at maximum load.
[2] Sound pressure level IU: directivity 3 dB(A), 0.8m in height and 1.0m in distance.
[3] Sound pressure level OU: directivity 3 dB(A), distance 1.0m, height is at centre of outdoor fan.

climaVAIR plus Multi-twin system

Technical specification

System reference		climaVAIR plus multi twin system	
		VAM 2-060 W2N (2 Indoor)	
Indoor units		1 off VAI 2-025 WNI	
		1 off VAI 2-035 WNI	
Outdoor unit		VAF 2-060 W2NO	
Heating capacity	kW	6.25	
(Min-max)	kW	2.64 - 7.60	
Cooling capacity	kW	5.40	
(Min-max)	kW	2.27 - 6.53	
Power input heating/cooling	kw	1.73/1.66	
Operating current heating/cooling	A	7.50/7.20	
EER/CoP		3.25/3.61	
Energy level class		A	
Annual consumption[1]	kWh	830	
Indoor unit		VAI 2-025 WNI	VAI 2-035 WNI
Air flow volume	m^3/h	250/300/500	310/450/580
Remote control type		Infra-red	Infra-red
Sound pressure level (min-max)[2]	dB(A)	26/38	28/40
Dimensions HxLxD	mm	265x790x200	265x790x200
Net weight	Kg	8.5	8.5
Outdoor unit		VAM 2-060 W2N	
Air flow volume	m^3/h	1800/2500	
Sound pressure level (min-max)[3]	dB(A)	52	
Refrigerant		R410a	
Refrigerant charge heat pump	gr	1,450	
Inverter DC/AC		Inverter DC	
Expansion system		EXV + Capiliary	
Dimensions HxLxD	mm	695x845x315	
Net weight	Kg	60	
Installation			
Power supply	V/Ph/Hz	230/1/50	
Supply to:		Outdoor	
Pipe connection liquid/gas	in	1/4 - 3/8	
Max. piping length	m	30	
Max. height differential indoor to outdoor	m	10	
Chargeless length	m	7.5	
Additional charge per metre	gr	15	

[1] Based on 500 hours operating at maximum load
[2] Sound pressure level IU: directivity 3 dB(A), 0.8m in height and 1.0m in distance.
[3] Sound pressure level OU: directivity 3 dB(A), distance 1.0m, height is at centre of outdoor fan.

climaVAIR plus high wall mount mono split system

Technical specification

System reference		climaVAIR plus high wall mono split system			
		VAI 2-025 WN	VAI 2-035 WN	VAI 2-050 WN	VAI 2-065 WN
Heating capacity	kW	2.90	3.80	5.10	7.30
(Min-max)	kW	1.0 - 3.6	1.2 - 4.4	1.6 - 6.7	3.2 - 7.9
Cooling capacity	kW	2.60	3.50	5.00	6.70
(Min-max)	kW	0.9 - 3.3	1.1 - 3.4	1.5 - 6.4	3.5 - 7.3
Power input heating/cooling	kW	0.65	0.97	1.55	2.09
Operating current heating/cooling	A	2.90/3.00	4.30/4.20	6.90/6.40	9.40/9.10
EER/CoP		4.00/4.26	3.61/3.84	3.23/3.62	3.21/3.26
Energy level class		A	A	A	A
Annual consumption[1]	kWh	325	485	775	1045
Indoor unit		**VAI 2-025 WNI**	**VAI 2-035 WNI**	**VAI 2-050 WNI**	**VAI 2-065 WNI**
Air flow volume high/med/low	m^3/h	250/300/500	310/450/580	570/800/850	820/980/1080
Remote control		Infra-red	Infra-red	Infra-red	Infra-red
Sound pressure level (min-max)[2]	dB(A)	28/33/39	29/35/40	37/40/44	41/45/48
Dimensions HxLxD	mm	265/790/200	265/790/200	295/920/225	325/1,000/235
Weight	Kg	8.5	8.5	11.5	16.5
Outdoor unit		**VAI 2-025 WN**	**VAI 2-035 WNO**	**VAI 2-050 WNO**	**VAI 2-065 WNO**
Air flow volume	m^3/h	1060/1800	1060/1800	1360/2200	2000/2700
Sound pressure level[3]	dB(A)	60	62	64	66
Refrigerant		R410a	R410a	R410a	R410a
Refrigerant charge heat pump	gr	1100	1100	1180	1950
Compressor type		DC inverter twin rotary	DC inverter twin rotary	DC inverter twin rotary	DC inverter twin rotary
Dimensions HxLxD	mm	600/760/285	600/760/285	600/760/285	695/845/315
Weight	Kg	38	38	39.5	52
Installation					
Power supply	V/Ph/Hz	240/1/50	240/1/50	240/1/50	240/1/50
Max. operating current	A	7	9	12	15
Recommended fuse size (Type D)	A	10	10	16	20
Interconnecting cores (indoor to outdoor)		3 core + earth	3 core + earth	3 core + earth	4 core + earth
Supply to:		Indoor	Indoor	Indoor	Indoor
Pipe connection liquid/gas	in	1/4 - 3/8	1/4 - 3/8	1/4 - 1/2	1/4 - 1/2
Max. piping length	m	20	20	25	25
Max. height differential indoor to outdoor	m	10	10	10	10
Chargeless length	m	7.5	7.5	7.5	7.5
Additional charge per metre	gr	20	20	20	20

[1] Actual ratings dependent on system components.
[2] Sound pressure level indoor unit: directivity 3 dB(A) distance 2.2m.
[3] Sound pressure level external unit: directivity 3 dB(A) distance 1.8m.
Nominal cooling capacities based on indoor temperatures of 27ºCDB/19ºCWB -- outdoor temperatures 35ºCDB/24ºCWB.

climaVAIR exclusive high wall mount mono split system

Technical specification

System reference		climaVAIR exclusive high wall mono split system	
		VAI 1-025 WN	VAI 1-035 WN
Heating capacity	kW	2.93	3.81
(Min-max)	kW	0.97-3.66	1.17-4.54
Cooling capacity	kW	2.64	3.52
(Min-max)	kW	0.91-3.37	1.13-4.37
Power input (heating/cooling)	kW	0.69/0.63	0.95/0.88
Operating current (heating/cooling)	A	3.50 / 3.20	4.30/4.00
EER / CoP		4.20/4.25	4.00/4.00
Energy level class		A/A	A/A
Annual consumption [1]	kWh	314	440
Indoor unit		**VAI 1-025 WNI**	**VAI 1-035 WNI**
Air flow volume	m^3/h	350/450/600	350/450/600
Remote control type		Infra-red	Infra-red
Sound pressure level (min-max)[2]	dB(A)	22/38	22/38
Dimensions HxLxD	mm	290x905x165	290x905x165
Net weight	Kg	10.0	10.0
Outdoor unit		**VAI 1-025 WNO**	**VAI 1-035 WNO**
Air flow volume	m^3/h	1060/1800	1060/1800
Sound pressure level (min-max)[3]	dB(A)	52/57	52/57
Refrigerant		R410A	R410A
Refrigerant charge heat pump	gr	1,100	1,260
Inverter DC/AC		Inverter DC rotary	Inverter DC rotary
Dimensions HxLxD	mm	590x760x285	590x760x285
Net weight	Kg	38	39
Installation			
Power supply	V/Ph/Hz	230/1/50	230/1/50
Max operating current	A	8.50	9.00
Recommended Fuse size (Type D)	A	10	10
Interconnecting cores (indoor to outdoor)		3 core + Earth	3 core + Earth
Supply to:		Outdoor	Outdoor
Pipe connection liquid/gas	in	1/4 - 3/8	1/4 - 3/8
Max. piping length	m	20	20
Max. height differential indoor to outdoor	m	10	10
Chargeless length	m	7.5	7.5
Additional charge per meter	gr	20	20

[1] Based on 500 hours operating at maximum load.
[2] Sound pressure level IU: directivity 3 dB(A), 0.8m in height and 1.0m in distance.
[3] Sound pressure level OU: directivity 3 dB(A), distance 1.0m, height is at centre of outdoor fan.

Customer service support

contact details

Working in partnership

The after sales service and support behind every Vaillant product has helped us build a reputation for quality and reliability within the industry. It is an approach that is reflected in our support for our heat pump systems. We are committed to working in partnership with our installers, offering the very best industry support and training to develop the heat pump market.

Vaillant support team

Our dedicated team is on-hand to offer technical support. We are here to help with product familiarisation and to tackle any other issues that arise in relation to our heat pump range.

High quality training

Please contact our training team to register your interest in attending a Vaillant heat pump training course.

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Setting the standard for customer training

State of the art Vaillant Training Centre in Bristol

As the industry's leading training provider, Vaillant offers comprehensive training courses which can add value to your business.

Every year we train thousands of professionals. We are continually developing and improving our training programmes and facilities to provide a service that matches your requirements.

Every one of Vaillant's training courses is based on practical and detailed hands-on experience, backed up by expert tuition.

The aim of each Vaillant Training Course is to help improve your skills, which in turn can help you to improve your profit. That's why so many choose Vaillant as their training provider.

Who are Vaillant training courses designed for?

- Gas Safe Registered Installers
- IPHE Registered Installers
- SNIPEF Registered Installers
- Local Authorities and Housing Associations
- Service Organisations
- Architects and Specifiers
- Merchants and Spare Part Stockists
- Solar DHW installers
- Commercial boiler heating installers

Current training courses

ecoTEC high efficiency domestic boiler range
A one-day course covering our latest range of condensing boilers, including installation, operation, servicing and repair.

Commercial boiler range
A one-day course covering commercial installation, operation, servicing and repair.

BPEC unvented domestic hot water
Three courses are available to suit all candidates wanting to take this assessment.

Unvented domestic hot water initial assessment
A one-day BPEC certificated course comprising a theory training session in the morning followed by assessment in the afternoon.

Unvented domestic hot water re-assessment
A half-day course comprising a brief update tutorial followed by the BPEC re-assessment examination paper. Please note to be eligible for this assessment all candidates must already hold a certificate of competence for unvented domestic hot water (expired or current), and will be required to present it prior to the assessment.

Unvented domestic hot water defined scope assessment
A one-day defined scope BPEC certificated course for those wanting a better understanding of unvented domestic hot water systems, but not intending to install them. Please note this course does not qualify you to install unvented domestic hot water systems in accordance with part G3 of the Building Regulations.

MCS Installer Scheme
A one-day course designed to provide installers with a thorough understanding of what is involved in getting MCS accreditations and giving them all of the tools to be able to do this.

Solar product course
A one-day course for heating professionals wanting to get a basic understanding of solar domestic heating systems.

BPEC solar DHW course
A two-day course for heating professionals looking to gain solar heating BPEC certification.

BPEC solar DHW course
A two-day defined scope BPEC certificated course for those wanting a better understanding of solar domestic hot water systems, but not intending to install them.

Air to water heat pump product course
A one-day product course looking at the geoTHERM air range of air to water heat pumps. The day will cover installation, operation, service and repair.

Air to air heat pump product course
A one-day course designed for installers who wish to expand their knowledge of air to air heat pumps.

Ground source heat pump product course
A one-day product course looking at the geoTHERM range of ground source heat pumps. The day will cover installation, operation, service and repair.

BPEC heat pump course
A two-day BPEC certificated course for professionals seeking a GSHP qualification.

Mechanical ventilation heat recovery product course
A one-day product course looking at the recoVAIR range of mechanical ventilation heat recovery units. The day will cover installation, operation, service and repair.

FGas regulations course
Three-day training course leading to the Construction Skills assessment on the FGas Regulations.

Domestic controls training
A one-day course designed to give you the best knowledge and expertise with our range of controls and accessories.

Certificate in Energy Efficiency for Domestic Heating
A one-day course to help you promote the benefits of high efficiency boilers to your customers.

BPEC CPA 1 Combustion Analyser Assessment
From 1st February 2010, CPA1 will be a pre-requisite for anyone wishing to take ACS elements CEN1 and HTR1. We offer a one-day BPEC certificated course for those proficient in the use of a combustion analyser. The day comprises an update tutorial in the morning followed by assessment in the afternoon. If you would like to receive additional training on flue gas analysis or would just like the opportunity to practice with your own analyser, please contact us for further details.

Tailor-made courses
The Vaillant training department creates custom made programmes to suit your company's individual training needs.

For more information on any Vaillant training course please contact our Training Department on:
Telephone: 01634 292370 Fax: 01634 292354
E-mail: training@vaillant.co.uk
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Notes

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